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ON
NERVOUS AFFECTIONS

CONNECTED WITH

DYSPEPSIA.

BY

WILLIAM BAYES, M.D.

"QUEM INTERDIU VEL DOMESTICA, VEL CIVILIA OFFICIA TENEBUNT, HUIUS
TEMPUS ALIQUOD SERVANDUM CURATIONI CORPORIS SUI EST."

CELSUS.

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P R E F A C E.

IN laying the following pages before the public, I feel that some apology is necessary for intruding upon their notice a subject which has been so ably and so frequently treated upon by men of no ordinary talent, from the age of Abernethy down to the present time.

The volume which I now present to the reader owes its rise to my having occasionally wished to place in the hands of patients, just recovered from disorders which have had their origin in Dyspepsia, some little work which should instruct them for the future how to avoid the recurrence of their ailments. Most books upon this subject are either too exclusively professional, or are too lengthy for the general reader; and I have, therefore, found myself under the frequent necessity of writing

down certain rules, which I have desired such patients to follow.

It is from these rules, and the notes of the cases to which they referred, that the present little volume has been compiled. In its composition, I have aimed at what I have believed to be practical utility, rather than at literary elegance, and trust that, for any want of the latter, I may rely upon the kind indulgence of the reader.

63, *Grand Parade,*

Brighton, Sept. 1851.

PREFACE

TO THE SECOND EDITION.

THE very rapid sale of the first issue of this little work, having rendered it necessary that a second edition should be presented to the public, an earlier opportunity than I had anticipated is afforded me, of acknowledging the many favourable and flattering notices with which it has been everywhere received.

It is the great duty of every man, whatever his position in society may be, to diminish to the utmost, the suffering which surrounds him on every side. Disease—poverty—crime—are ever active; each may and will produce the other; and, whether the physician teach the avoidance of the first—the political economist of the second—or the minister of religion or of law, the third, they will equally confer a benefit upon society, by weakening a link in the chain of misery and guilt, which at present binds down in its ignominious slavery so many thousands of our fellow countrymen. It is under a strong sense of this duty that I have been induced to enter the literary arena, where, even the smallest effort in the cause of truth, may effect its mite of good.

If these few pages induce their readers to pay a greater attention to the preservation of their health; if it save

some from unwittingly allowing disease to take root, and spread through their frame, embittering the after years of their existence; if it tend to diminish human infirmities, and the consequent distress they entail on their possessors and on posterity, my objects will have been fully attained.

Earnestly and constantly do the medical profession call upon all, whose position and wealth give the power, to assist in diminishing disease, and in alleviating distress. Sanitary reform is a public duty, and hygienic reform is a private one, which every man owes to himself and to society; and the more widely the knowledge of these truths is spread, either by popular lectures or popular books, the sooner may we hope to diminish the extent of disease, at present so appalling. That a vast amount of disease is preventible, admits of statistic proof.

The Society of Friends (Quakers), numbering nearly 20,000 members, possess an average of life equalling 20 per cent. higher than the average life of our English population generally.

Among their number are men, women, and children, exercising great variety of occupation—holding different social positions in life, from the rich to the poor, and living in every description of climate; but being always temperate in their habits, regular in their modes of life—neither indulging in extreme luxuries when wealthy, nor suffering privations of necessities when poor, since every man is well clothed and fed, even to the poorest among them. This fact is attested by calculations, carried back for more than 100 years.

Nor is their average to be taken as a standard; a careful attendance to hygienic rules would, I am sure, be followed by results still more satisfactory.

There are now some hopes of a considerable sanitary reform being effected in our towns and cities, mostly owing to the unremitting efforts of the medical profession: no mercenary motives can here be assigned them, 'tis a pure and Christian philanthropy which thus urges a large body of men to incessantly cry for the extinction of the very source of their income; and the annals of their country will ever present a proud monument to their disinterested zeal.

It is my hope that, ere long, Hygiene, or, the "study of the laws which regulate health," will become a subject of general education; that it will be introduced into all our schools, and that the knowledge of one of the most important of all sciences will become as general as it has hitherto been neglected. The high consideration paid to this subject by both sacred and profane writers, will shew the great repute in which this study formerly was held, since we are told that the greatest of all knowledge is to "know thyself."

Forewarned is forearmed, and were Hygienic rules better understood, and the consequences of a departure from them more appreciated, we should not so often witness disease attacking those in the prime of life, and our remedial measures rendered abortive through their neglect.

I would particularly call the attention of my readers to the first and fourth chapters, and to the remarks upon the use of the bath contained in them. The importance of preserving the healthy function of the skin, is far too little known by the public; the absolute necessity that he who would be healthy must well attend to the state of that membrane, becomes daily more impressed

upon my notice. There is scarcely a disease in which the well regulated use of the bath may not produce both alleviation and lasting benefit.

In the internal abdominal congestion which always accompanies and sometimes precedes incipient consumption in children, (and occasionally in those later in life,) the warm bath at night and the tepid bath in the morning afford our best hopes of relief, in conjunction with other remedial measures.

While in all febrile diseases, whether they incline to the inflammatory or typhoid type, great relief and benefit will be found in tepid sponging (care being used to ensure against a chill).

I have now and then found some difficulty in overcoming the prejudice felt by persons against cold or tepid morning ablutions, but, when once commenced, I have not ever known it discontinued, as even in winter it is productive of positive pleasure, from the fresh and healthy feeling of strength it imparts to the whole body.

17. Marine Square
~~63, GRAND PARADE,~~ BRIGHTON,

December, 1851.

ON

NERVOUS AFFECTIONS

CONNECTED WITH

DYSPEPSIA.

CHAPTER I.

IT must very forcibly strike the eye of every observer of nature, and cannot fail painfully to impress him, that he, man, created in the image of the Deity, constituted Lord of the Creation, the possessor of the highest intelligence, the most elevated reasoning powers and most perfect organization, should be subject to pains and diseases, so multiplied in number and complicated in form, that scarcely does one individual pass through his ordinary and natural period of life, without having often-times suffered severe deviations from health in one or other shape; while every other created being, even to the lowest point in the scale, glides through its usual course from birth to death, with almost unerring certainty, unless, where some accidental circumstance has deprived it of its life, or where man, having made the animal his slave or companion, or, as we call it, domesticated it, has placed it out of its own power

to follow the dictates of its instinct, and thus has entailed upon it, also, the same occasional disturbances of health, to which he is himself subjected.

In the curse bestowed on man at the "fall," disease makes no part; death was to supplant corporeal immortality; but a regular and fixed period of existence was allotted, and during that period the body and the mind, after reaching the zenith of vigour and power, gradually and by almost imperceptible degrees, subsided into a second stage of weakness and dependance, which terminated in death.

It is more than probable, that disease in the first instance originated in a departure from, or violation of, one of the natural laws by which all created things are governed; that it has been perpetuated and enlarged to a prodigious extent, by their continued and repeated infraction, is as certain as the consequences are deplorable, and is painfully evidenced to the physician, by the large and increasing number of hereditary diseases and predispositions.

The class of evils which we propose to consider in the following pages, "*Nervous affections arising from or depending upon Dyspepsia*," is not only one of the most numerous and distressing, but also it fortunately is one which, under judicious care, is capable of very general, nay of almost universal alleviation, and in by far the majority of cases, of permanent cure.

Whoever looks candidly and impartially at the physical condition of the *rising* generation, and is able to carry back his recollection to the youthful days of the *last*, will, I am sure, join with me in the remark, that the whole tendency is towards a rapidly-increasing sensibility.

Slighter causes suffice to produce serious evils and maladies, while the same remedies, which erstwhile bore healing on their wings, are now too powerful to be used, without endangering the life of the patient. We see young men, at an age when life should be most vigorous, weakly, languid and debilitated; while the female sex are becoming more nervous and delicate, and far less capable of resisting any serious or sudden shock to the system, either by disease or by accident.

There are many causes which have tended to produce this. By luxurious habits, by sedentary employment, by continued over-exertion of body or anxiety of mind, by long residence in populous cities (in which there is a deficiency of pure air for the purposes of respiration), by a combination of these and many other causes, is produced a peculiar state of body and of the whole system, which I would call "Enervation, or loss of nervous vigour." A state of health short of actual disease, but paving the way for its entrance, breaking down the barriers of health, and therefore rendering doubly dangerous any exposure to morbid influences.

This Enervation makes us feel languid and incapable of exertion, depresses our spirits when no apparent cause exists, saps the very root of our happiness, and disposes us to look listlessly on all that formerly interested and gratified us. Our appetite fails, or becomes very capricious, requiring the use of stimulants and relishes to induce us to eat as much as our reason tells us is needful for our support: our sleep becomes light and uncertain; we pass the first hours of the night in a state of anxious wakefulness, but slumber soundly toward the morning, and rise unwillingly, unrefreshed and uninvigorated.

If unchecked in its course, this state terminates naturally in Dyspepsia, or Indigestion, chiefly induced by the use of the stimulants, by which we tempt ourselves to introduce a far larger portion of food into the stomach, than, in its weakened state, it is able to digest; and, further, it is increased in a direct manner, by the constant irritation of the mucous membrane, which the condiments themselves excite.

This state of Enervation may have its commencement at any period of our existence. It occasionally dates its origin to the period of life immediately succeeding infancy, either from a careful avoidance of exposure to the open air, or from too sparing a use of cold water. But it is far more frequently contracted during school-days, through a wish to see

the child preternaturally forward and clever, and the consequent imposition of such an amount of mental labour on the brain, as very much to detract from the requisite nervous power with which it is its function to supply the body. It should be our care during childhood rather to repress than to encourage, that activity of mind and *love of reading to the neglect of active bodily exercise*, which we see in so many children of the present day. For not only does early mental exertion interfere with the performance of those functions of the great nervous centres (which should exist in all their power, in order that digestion and nutrition should proceed uninterruptedly), but we often also defeat our own object, and see the genius of seven a very ordinary boy at fifteen, and if he live, find him even behind the mental average at thirty: while, if his mind continue in its original activity (which is a very exceptional case), we find him in body weak and debilitated, and frequently a confirmed invalid.

Indeed the evil effects of over study, at this early period of life, cannot be too forcibly impressed on the minds of parents, and all having the guardianship of youth; great improvements have been made recently in many of our best establishments, as regards Hygiene, and much attention has been given to Gymnastic and other healthy exercises; there still, however, remains room for improvement.

The congregation of a large number of young per-

sons in the school-room, for two or three hours at a time, requires that the most perfect ventilation should be adopted, and that abundant exercise in the open air, and the free use of cold water, should be afforded and enforced, as the best means of preserving the health and strength of the child, and of diminishing his liability to disease.

A contrary course produces a depression of the physical powers, and renders the child what we call "fanciful and fretful," punishment being often the lot of the little scholar, in whom, over exertion of the brain in school hours, and deficient exercise in the open air, have induced this peculiar state, and who is obliged either to be declared on the sick list, be confined in the house, and drenched with powerful medicines, or to force himself to overload his stomach with food (often not the most delicate), in order to avoid this domestic inquisition.

In the later periods of life, the same consequences follow over application to business, or to study. How often does a man of no ordinary promise and prospects, break down at College, and return to his family a burden and anxiety, where he would have been an honour and a pride, had he been content to aim at less, and to bestow upon his corporeal frame, a fractional part of the care and nurture he lavished on his mind.

It is however needless to multiply examples of evils so unfortunately extended as to be familiar to

all. Nor does Enervation owe its rise solely to over mental exertion, though it be a fertile source of evil. Civilization is daily introducing to our use a thousand new luxuries, the furthestmost corners of the earth are ransacked for their contributions, and science and the arts are the ready servants of the voluptuary.

We pass with noiseless tread over thick and down-like carpets, into saloons pervaded with the most delicate perfumes, where the tempered and subdued light passes through tinted and shaded curtains, and reveals to us furniture most luxuriously elegant, into the cushions of which we may sink with a sense of dream-like repose, yet thus surrounded with luxury, we find the inmates of this seeming Paradise almost unfitted to enjoy it, since, every sense becomes so delicately acute, that impressions, which, under a less luxurious mode of life, were passed unheeded and unnoticed, become now painful and distressing. A loud noise, a strong or sudden light, or a slight fall, are sufficient to produce serious effects on one, whose whole organization has become exquisitely sensible. It would seem as though the nervous system had gained in sensation what it had lost in power.

Perhaps the most dangerous effect of Enervation produced by luxurious living, is the debility of the skin, which becomes extremely sensible to heat, and to the morbid impressions of infectious and contagious diseases.

Far advanced as we are in luxury and refinement, we still cannot rival that which report has handed down to us, as having been practised by the ancient Romans, yet, with their luxury, they combined one of its best correctives, in the constant and very frequent use of the bath, by which the skin, one of the most important structures in the consideration of disease, was kept in a healthy and vigorous condition, and the danger of Enervation much diminished. In the present day the use of the bath is much neglected in Italy, and in Rome, where luxury has for generations exerted her influence upon some of the older families, it is a thing of common occurrence, that a lady should faint or receive an illness through accidentally smelling a bouquet, or even a bunch of violets.

A third cause of Enervation, is sedentary employment or habits, which would have less effect in all probability, were it not generally combined either with luxurious habits among the rich, or with innutritious diet and badly-ventilated dwellings amongst the poor. If this state destroy the pleasure and often renders distressing, a life surrounded with all that wealth and riches can command, it is painful to think how much it must add to the misery of the poor and wretched.

The fourth, and perhaps the most widely spread of all the causes of Enervation, is found in a long-continued residence in a populous city, or in cities

which have once been populous. It appears to depend almost entirely on the impurity of the air. In a large city like London we find it most apparent; two million human beings congregated in a small space, beside innumerable animals, all constantly respiring the air, and expiring it deprived of a large portion of its oxygen, would in itself prove an efficient source of evil; but when we consider further the thousands of fires, all consuming largely of oxygen, and all contributing impurities in equal proportion to the atmosphere—when we consider the excretions of such a mass of animal life, the noxious gasses and effluvia arising from them, to pollute the atmosphere with their poison—when we look at the dingy streets, and the half-misty sky—when we see the small houses with their crowded inmates—and when we remember the burial grounds crammed with occupants, we shall see hundreds of causes why perfect health should be the exception, Enervation the rule, and disease so frequent and so fatal.

CHAPTER II.

ENERVATION AND DYSPEPSIA.

THUS far we have briefly considered some of the more general causes of Enervation, in the previously healthy body : it is, however, very frequently the sequel of other diseases.

An attack of fever or acute inflammation, leaves the patient prostrated, after the disorder itself has entirely disappeared, and as the state of convalescence represents Enervation, with every symptom strongly and forcibly delineated, it serves as an admirable example, more fully to pourtray both the symptoms and cure of this condition of body. When it occurs as an original and not as a secondary disorder, it appears under a much milder and more modified form.

The first feature of this affection which strikes the eye of an observer, is a general languor and listlessness, a desire to remain tranquil and undisturbed. On rising from his couch, although his sleep may have been long and peaceful, the patient still feels drowsy and tired. There is for the most part a degree of carelessness as to his meals, no dislike or loathing of food, but unless it be placed

before him, he will hardly trouble himself to inquire for it, and without it consists of some tempting delicacy, he will eat very sparingly or scarcely even touch it. He sighs frequently, gapes and stretches like one but half awaked, feels "ennuyed," unable to fix his attention; books are thrown aside one after another, nothing has any power long to interest him; he feels irritable and fretful, is very susceptible to emotions of pleasure or of pain, laughs immoderately without power of restraint, on slight occasions, and in extreme cases is as easily moved to tears. Toward midday, a vague sinking sensation takes the place of a healthy appetite, which is easily removed by his eating some light and delicate morsel; after a meal he is dull and drowsy, and often sleeps soundly. His skin is weak, perspiring freely when warmly clad, yet feeling acutely the least current of air; at one moment he complains of cold and asks you for wrappers, while at the next he throws them all off with impatience of heat.

Under this state of body, the complexion of the patient becomes pallid, the flesh loses the firmness and tonicity of health, the eye cannot bear strong light, the ear is intolerant of noise, and scents, even those of flowers, are complained of as overpowering. The voice becomes tremulous and hesitating, any mental emotion calls up the blood rapidly to the cheek, every movement is uncertain and nervous, the passions painfully excite the patient, he becomes

irritable and anxious, and unfitted to the exertion of the mind necessary to carry on his accustomed avocations. The pulse is weak and slow, but rapidly increased by exercise of body or mind; palpitation of the heart is easily induced by anything which ruffles the temper; the face at the same time becomes flushed and hot, while the extremities are cold and bloodless.

The tongue is clean, but pale and trembling, and often is indented round its edges by the impress of the teeth. The bowels are generally torpid and constipated, but sometimes they are relaxed, especially in extreme cases. The urine is abundant and very pale.

Such is the state into which we often see a patient reduced after a long attack of fever, or after inflammation of some important organ; the strong and powerful man, after a few weeks of suffering, is brought, both mentally and bodily, into a state of weakness and debility as great, or even greater, than that of a nervous and delicate female—a state of extreme and imminent danger, in which a predisposition exists to a relapse of his disease, on a much slighter exposure to the morbid influence, than that which caused his illness, while at the same time, the patient is rendered less able to withstand any severe shock to his physical health*.

* As examples we may mention that a much slighter exposure to cold will recall pneumonia or pleurisy, than that

So well known and felt are these dangers, that wherever the means of the patient admit of such an arrangement, we advise that the convalescent should be removed as soon as possible from the scene of his disease, and that he should be as freely exposed to the pure and fresh air as is consistent with his safety—we order him a careful system of diet, abstinence from all indulgences of the table, regular hours for meals and sleep, daily baths or ablutions, and a careful attention to the state of the alimentary canal.

With strict attendance to all these points, the rapidity of his recovery is often a matter of astonishment to the patient and his friends. Where Elevation arises from any of the causes mentioned in the previous chapter, and does not occur as the sequel of disease, its effects will rarely be so painful,

which originated it, and the patient, in all probability, would sink under a second attack of inflammation, should it find him in a condition thus weak and powerless. There are other diseases which do not subject the patient to a liability to relapse, as small pox, scarlet fever, and measles; in these cases there is generally a secondary disease to be feared, which although it be not in itself necessarily fatal, frequently becomes so from the circumstance of its supervening upon a severe illness, and thus finding the patient deprived of all stamina to resist its attacks. Thus it is often our painful experience to see the fever patient sink under an attack of dropsy, induced by a very slight exposure to cold, or from some similar indiscretion to see an attack of pneumonia carry off our little measles convalescent.

nor its symptoms of so great severity, as those before mentioned, because long before Enervation could have proceeded "*per se*" to so great an extent, some other disease would in all probability have supervened. Cases, however, may, and do occur, of thorough prostration and debility, of which acute disease has not been the cause, but they are rare, and rather the exception than the rule. The languor, listlessness, feeling of weariness, carelessness of food, great delicacy of stomach, irritability, slight depression of spirits alternating with sudden and unaccountable elevation of them, nervous and hesitating manner, inability to bear any thing quietly, which acts upon the passions, fluttering of the heart on any excitement, whether pleasurable or painful, are the common symptoms of uncomplicated Enervation, and require the same mode of treatment for their alleviation, as is required in cases where this state of body is the sequel of other disease. Of the details of this treatment we shall speak more fully in the last chapter of this little work.

Enervation may properly be called a passive state, upon which almost any disease may become engrafted; it renders the body fertile for the propagation of any morbid poison which may enter it; delivers it an almost certain prey to epidemic or endemic disease, and increases the tendency toward hereditary ailments.

A slight cold, caught by a patient in this condition, may terminate in pulmonary consumption, a trivial excess at table end in an apoplectic fit, or a blow on the head cause an epileptic seizure.

The most frequent progression of this unhealthy condition is towards Dyspepsia, which a very slight error in diet, either of omission or commission, will suffice to induce in the enervated.

By Dyspepsia we understand a disturbance of the vital functions, by which the conversion of food into healthy blood, (the formative and reparative fluid of the body) becomes impaired or arrested; the immediate consequences of which are, a general interference with, and improper performance of, every vital function; the remote consequences are, imperfect nutrition and excretion, which may end in structural mischief if sufficiently long continued.

The direct bearing of Dyspepsia upon the general health, and upon life itself, will be best seen by rapidly passing in review the conditions of life.

The human body consists of various structures, so arranged that each bears a certain relation to the other in size and position; and these, having attained their perfect development, cannot, without danger and inconvenience to the whole, suffer that relation to be disturbed or altered.

Thus we have a bony skeleton, banded together with ligaments, which supports; a muscular system, attached to the bones by more condensed fibres,

which gives us the power of motion and volition; a second muscular system, which performs certain functions independent of our will. We have a nervous centre, and its ramifications, which directs our movements, and warns us of danger. We have a series of tubes to convey the different fluids which circulate in the body. We have a loose tissue which connects these various parts together, and encloses that peculiar substance, fat. We have various glands, which each play their part in the function of life. We have a canal passing through the body into which food for its nourishment is introduced. We have other tubes permeating the lungs for the passage of the air needed for the oxygenation of the blood. We have a mucous membrane lining these tubes and canals, and, finally, we have the skin, which encloses all these structures, and protects them from external influences.

Now, every part of the body is constantly undergoing change. The effete and useless particles are continually being detached and carried away through the veins, and new and healthy particles, assimilated from the arterial blood, take their place. *Upon the regularity of this change health depends.* Any disturbance of it is a departure from perfect health.

If the arterial blood be deficient in any of its proper ingredients, or if any of them exist in undue proportion, general disturbance will ensue.

But beside this reparative value possessed by

healthy blood, there are various secretions to be supplied from it. The saliva, the gastric juice, the mucous and serous secretions, etc. etc. depend for their purity on the quality of the blood; and the healthy formation of the blood is dependent upon the proper performance of the various functions, on the quantity and nature of the food taken into the system, and upon the purity of the air to which it is exposed in the lungs during the process of oxygenation.

If the air we respire be impure, the blood will be but imperfectly oxygenated, and will circulate with less force, the secretions from it will be proportionably weakened, and the extraction of nutrition from the food in the formation of new blood will, in consequence, be imperfectly performed by the different organs.

If the food we introduce into the stomach be improper, or in proportions unequal to the demand, the qualities of the blood must also be altered.

The symptoms of disturbance from either of these sources will be more or less marked and violent, according to the magnitude of their exciting cause. An uneasy feeling, or even pain in the stomach, will first draw our attention to that organ as the seat of the evil; but, although it may not be perceived by us at once, there will also be a corresponding interruption in the due action of every other vital function, and a proportionate disturbance of the general health.

And it is this general disturbance of the functions, employed in changing food into blood, inanimate substances into animate, which we call Dyspepsia, or Indigestion. There is no part of the body which may not become seriously injured in structure, by a continuance of this disorder of the functions. The effete portions of each part of the fabric being constantly carried away, the body will quickly be destroyed, if the supply of particles, destined for its repair, be withheld. The bones may become either pliable and weak, as in the rickets in children, or become brittle from want of animal matter, as is sometimes seen in after life. The muscles may become soft and attenuated, so as to rupture on moderate exertion, and the nervous centres may undergo softening, producing paralysis, imbecility, and death.

But beside the two general causes before-mentioned, viz.—impure air, and improper diet, we may mention insufficient mastication of food, as a very frequent cause of Dyspepsia. The food, being only partially broken and insufficiently moistened in the mouth, is passed into the stomach, in a state unprepared to receive the full benefit of the change, which the action of the gastric juice and other secretions should produce; it is, therefore, either retained longer than natural in the stomach, which it irritates and distresses, or it is passed along the alimentary canal in a half-digested state, continuing the irritation and inconvenience along its whole course.

Lastly, the mass being more solid than it should be, the intestines are less able to expel it, and it remains, producing constipation, with its consequent train of ailments, the retained fæcal matter not only irritating the bowel in its immediate vicinity, but exerting a directly noxious influence on the system at large by its partial absorption, and ending in serious disease, unless the constipation be speedily removed.

The symptoms which characterize Dyspepsia, and the individual form in which it appears, are much governed by accidental circumstances, by the predisposition of the patient, by the more immediate cause of the disease, and its concomitants.

For general purposes, these symptoms may be grouped into two classes, and may be respectively denominated the active and the passive; the former appearing mostly in persons of inflammatory habits, the latter in those of low power of vitality. Both forms of the disorder will have been preceded by some degree of Enervation; but the active will occur in those persons possessing more *stamina*, and will have been excited by some more powerful and severe cause, than that which eventuates in the passive. It will have been induced by some grave error in diet, and will be the more serious, if mental anxiety be superadded.

A frequent cause of this form will be found in the arduous application of the last few weeks, pre-

vious to a college examination, combined with inattention, during that time, both to regularity of meals, and to the state of the bowels; or indeed it may be traced to any severe mental or bodily exertion, added to errors of diet, and constipation. It often makes its appearance suddenly and forcibly, and is characterized by head-ache, vertigo, sometimes by vomiting, distressing sensations at the pit of the stomach, heartburn, nightmare, feverish heat in the mouth, with considerable thirst, a hot dry skin, especially the palms of the hands and soles of the feet, often connected with night perspirations; the voice is tremulous, there is a general feeling of agitation and excitement, and an anxious sensation without any apparent cause. With these symptoms, the tongue is dry, and deeply furred, especially at the back, the edges being at the same time preternaturally red, and the papillæ are enlarged; the throat is often slightly congested, and there is a short dry cough; the whole mucous membrane of the mouth and gums is slightly swollen and red: the face, after a meal, becomes either flushed, or covered with an oily-looking perspiration.

In the more advanced period of the disease, the tongue assumes a red and shining appearance, and has a peculiarly dry and adhesive feeling to the touch. The bowels are generally constipated and loaded with hard fæcal lumps, but they are sometimes relaxed with a tendency to dysentery. There is always at

this advanced stage, more or less pain in the stomach after every meal. The skin becomes moist and clammy, except towards bed-time, when the hot, dry state of the hands and feet returns for an hour or two.

The tendency of this distressing disease, in the earlier stage, is towards spontaneous recovery or a removal of the exciting causes, but very slight errors of diet induce its recurrence, so that the disorder seems only to fluctuate; the more distressing symptoms subsiding for a time and afterwards reappearing, to a second time subside and again to appear, the intervals of comparative health becoming shorter: the violence of the attack becoming mitigated although its duration be lengthened. Finally, it gradually and nearly imperceptibly glides into the passive form of the disorder, unless some complication occur which from its severity reads so strong a lesson to the sufferer, that he is induced, for the future, carefully to avoid all those causes which tend to its continuance.

Dyspepsia in its passive form approaches slowly, and the inconvenience it produces is not sufficient to alarm the patient until so great an effect is evidenced upon the general health, that perfect recovery is rendered very improbable. For months, or even for years, he may have suffered slightly from all those symptoms of Enervation which we have already described: he finds his spirits depressed;

his night's rest light and unrefreshing, he rises reluctantly in the morning unrecovered from the fatigue of the preceding day; he has, on first waking, an unpleasant sensation or taste in the mouth; his tongue is covered with a white fur, but becomes cleaner after breakfast. His appetite is very uncertain; after his dinner, especially if he have partaken of the heavier or richer dishes, he will feel dull and sleepy, and unfitted for mental exertion; his head will be confused, and he will suffer an uneasy sensation in the stomach, sometimes amounting to pain; flatulence and eructations will also be very troublesome. Towards night he will feel lighter and better than he has done during the day.

The pulse is feeble and slow, the tongue white, pale and tremulous, its sides indented by the teeth: the bowels are frequently constipated and irregular in their action, requiring, almost always, some artificial assistance.

This state may go on for many months or even years, each of the unpleasant symptoms increasing in force. If the patient take change of air, scene and diet, they disappear or diminish for a time, but always return upon his again entering upon his old habits and employments; as the disorder progresses the spirits become more depressed, the sleep is more disturbed, the languor is greater on first rising, and is often accompanied with headache and dizziness.

The tongue is more loaded, the mouth tastes unpleasantly, often acid.

After every meal there is pain in the stomach, and as digestion proceeds, spasmodic pains are felt in various parts of the abdomen, especially in either side. Eructations are frequent; flatulence is often both painful and annoying, causing the body to swell to a considerable size; the confused feeling of the head becomes constant, producing to more or less extent, loss of memory.

The countenance assumes a pale and anxious expression, tinging every feature with an appearance of peculiar distress; the skin is cold and clammy, perspiring profusely. Palpitation of the heart follows even slight exertion, such as running, especially up stairs, or occurs on any sudden mental emotion. Constipation has now become a very prominent symptom, and is increasingly obstinate and painful.

If the disorder still proceed unchecked, heartburn succeeds nearly every meal, and that distressing sickness known by the name of Waterbrash, in which a clear fluid, often in considerable quantities, is vomited. Pain in the stomach becomes fixed, diarrhoea supervenes, and hemorrhage from the stomach or bowels terminates the sufferings, which had rendered the patient's life, a misery. The examination after death, generally shews that ulceration of some portion of the stomach or alimentary canal, has caused the fatal termination.

The tendency of the passive form is to long continuance; it has been produced by long exposure to certain causes, and as the "dropping of water wears away stone," so the frequent though slight shocks of this disease undermine the constitution, until a return to perfect health becomes almost impossible.

CHAPTER III.

DYSPEPSIA AND ITS CONSEQUENCES.

WHERE Dyspepsia runs its course without mitigation, and where no other disease becomes engrafted upon it, the patient is often afflicted with that distressing train of symptoms which constitute hypochondriasis, and this occurs in its mildest form when it is a sequel to Passive Dyspepsia.

In a mild attack of Hypochondriasis, the mental powers of the patient are depreciated; he feels restless, unable to follow steadily either amusement or employment; is irritable, shy and nervous, would rather pass his friends in the street unnoticed than encounter them; he seeks retirement and repose; the pleasure and brightness of all his prospects are negatived, even where misery and despondency are unfelt: he sighs though all around be prosperous, and gives himself over to a gentle dreamy melancholy. These symptoms, although not alarming, are still sufficiently distressing to deserve particular notice, the more so, as they afflict a very large class of individuals, and are often overlooked and unheeded until they have increased into one of the more formidable and less easily curable forms of the disease.

In the confirmed form of the disease the hypochondriac lives in a state of misery, which none can penetrate or conceive, but he who has experienced it at some period of his life. Under its influence the mind becomes as it were flaccid and bereft of tension. In the religious a deep feeling of melancholy, and an oppressive sense of hopeless future, magnifies every thought and action into one of unpardonable guilt, so hard to bear, that it has hurried many into a state of despondency bordering on madness, even where it has not terminated in insanity itself, which we but too often painfully witness.

I have known instances in which the kindness of friends and relatives, has been a source of unhappiness, the patient acknowledging their attentions, but overcome with the feeling of his own unworthiness of all the love and care thus lavished upon him.

In other cases I have seen a sudden dislike and suspicion of all around him, enter into the mind of the hypochondriac. In vain you evidence to him their actions. He suspects even the fondest and most disinterested. No moral argument or treatment will ever remove these diseased fancies, but as the Dyspepsia disappears, the mind becomes emancipated from the painful thralldom which oppressed it as with a "waking nightmare."

Where Dyspepsia is complicated with functional derangement of the liver, the disease appears in its most severe and malignant form. The patient be-

comes gloomy and morose. His mind, like a bad looking-glass, distorts every object, all the "beautiful" is banished from his existence. He feels that "every man's hand is against him," and looks on the darkest and worst side of all that is passing around him. Every passion becomes violent. Hatred, jealousy, or despair, often hurry him to the commission of acts which, in his healthy moments, he would abhor. The blood feels to boil within him; wild visions float before his eyes; horrible dreams deprive his sleep of its restorative and soothing influence; his night of terrors is followed by a day of misery and wretchedness, and but too often the unhappy man destroys his life in utter hopelessness and despair. In other cases, phrenzy, mania, or insanity, follow as the terminations of unmitigated hypochondriasis.

The curability of this disorder depends upon its cause, but every case is capable of very material alleviation, and the serious and fatal terminations may always be averted by proper care and attention.

Closely connected with hypochondriasis, and so similar in its symptoms to the worst forms of that disorder, that, in reference to its cause, it may be called the "hypochondriasis of drunkards," is *delirium tremens*. It occurs in those, in whom the habitual abuse of intoxicating liquors, and especially of spirits, has been the cause of indigestion in the

first place, and has for a long period continued to aggravate it. If great mental excitement, such as gambling or over speculation, be added, this formidable disease is induced the more rapidly, and is more difficult of cure.

The great and distinguishing feature of this disorder is want of sleep. The patient remains perfectly wakeful night and day, he is excited and nervous in the highest degree, rambling in his conversation, answering questions put to him, but immediately after muttering or chattering incoherently, and with great rapidity. Every voluntary movement is made in a hasty, tremulous, and nervous manner. If he stretch out his hand to reach anything, it is done with a sudden jerk. There is a great obstinacy, often, against taking any advice, and the patient not unfrequently refuses to taste either food or medicine. He seldom becomes furious or maniacal, but is constantly moving about and talking without ceasing. His tongue is deeply furred, his pulse very rapid, his limbs tremulous, his skin perspiring profusely, and in general he is suffering every appearance of depressed vitality. All these symptoms usually subside, if you can procure the patient good nights' rests, and then you have only his Dyspepsia left to remove, and to induce him for the future to avoid those habits which caused the disease.

In the preceding pages of this work, we have attempted to shew how inattention to hygienic rules

produces Enervation, and how easily some further disobedience to one or other of the laws of nature induces Dyspepsia, and we have traced Dyspepsia into its most aggravated forms, hypochondriasis and delirium tremens, we must turn now to the consideration of those diseases which complicate Dyspepsia, and often, by the violence of their symptoms, are apt to divert the attention of the patient from their cause. The complications of Dyspepsia are so multiplied, that were I to enumerate them, I fear I should lay myself open to the charge of tracing nearly every ailment to that disorder.

From extended observation in this and some other countries, I incline to believe that there are, in fact, very few diseases which suddenly attack the previously healthy body; its powers of resistance, when in perfect health, being so great, that it may be exposed to both malarious and infectious influences, with comparative impunity, provided the exposure be of short duration, and take place during a period of wakefulness. During sleep, the activity of the vital functions is greatly diminished, and the liability to infection consequently heightened*.

* The practical nature of this last remark, is well known in malarious districts, as in the Riviera of the Gulf of Genoa, and the Campagna round Rome, in passing over each of which districts, the traveller is warned against allowing himself to be overtaken with sleep, fever, and often death, being the penalty of neglect.

Placing aside those, which have for their cause specific poisons (malarious or otherwise), I would, in speaking of all other disease, divide its progress into three stages, of which Enervation is its infancy; Dyspepsia is its childhood; Inflammation, Consumption, Apoplexy, or whatever other active disease followed, is its manhood. The character of this last being modified by the hereditary predisposition of the patient, by his constitutional tendencies, by climate, and by many other accidental circumstances.

There are two modes in which indigestion may produce serious disease. Firstly—Through some alteration in the quality or quantity of the blood, by which it deviates from the healthy standard. Secondly—Through its allowing the presence of substances causing irritations or obstructions, in the alimentary canal.

By the first, are induced that large and important class of ills, known as blood diseases :—inflammation, hæmorrhage, and dropsy, and under these three heads, how many serious and fatal disorders may be grouped, each of which has had its particular name assigned to it, from the part of the body which it most prominently attacks.

The importance of these diseases bears a different value, according to their seat, depending rather on the structure of the part attacked than upon the severity of the disorder itself. For example, an amount of either inflammation, hæmorrhage, or dropsy,

which in the limbs would scarcely attract attention, would prove fatal if occurring within the brain. A deviation from the healthy standard in the blood may also give activity to hereditary disease, and thus induce pulmonary consumption, &c. in those predisposed to this class of disorders, although *per se* it would be powerless to produce them. By the second, viz. the presence of substances causing irritations or obstructions in the alimentary canal, are induced local congestions and inflammations, which may become general, and a large class of distressing nervous disorders. It is with this last phase of disease that we have to treat in the present instance, the former division embraces too large and too important a train of ills to be considered in so small a book as the present.

When indigestion occurs in the female, and is of the passive form, it generally becomes complicated with hysteria, sometimes accompanied with considerable disturbances of the menstrual function, but at others occurring where the greatest regularity is observed in its appearance.

The most familiar nervous complication of Dyspepsia is head-ache, commonly known as sick, or bilious head-ache; this is often speedily removed by a gentle purge, shewing its immediate connexion with the state of the alimentary canal; in other instances, especially in those where Dyspepsia has for some time existed, it comes on before a meal, and is

removed by eating; the cause of this is less apparent; we may however suppose, that it arises from slight faintness, by which the propelling power of the heart is diminished, and an insufficient supply of blood sent to the head; and we are still further induced to believe this, when we find that the recumbent position removes or relieves the pain.

Again, head-ache not unfrequently occurs after a meal; this sometimes arises from a want of proportion between the food taken into the stomach, and the gastric juice secreted by that organ; it may be thrown out in a superabundant quantity, in which case a few grains of carbonate of soda, are found to at once relieve it, or it may exist in insufficient quantity to digest the food, and this admits of two modes of relief, either that the patient should eat less at each meal, and very carefully avoid rich and indigestible food, or that we should, by giving hydrochloric or nitro-hydrochloric acid, supply an artificial solvent to assist the gastric juice in its action. I would warn all patients from attempting to apply these or any other medicines to the relief of their ailments, unless with the sanction of their medical attendant, for the injudicious exhibition of medicines, is one of the most dangerous as well as very frequent cause, of the prolongation of a disease, which in its first stage is, perhaps, easily removable by prompt attention well directed.

Head-ache may also be caused by the irritation of

improper food, or by the presence of flatulence, which distends the stomach, and the ease by which this is removed by a little cordial water, often induces the patient to entirely overlook its origin, and to trace his head-ache to "wind on the stomach" alone, forgetting that Dyspepsia is the cause of the flatulence, and that this will recur so long as the other remains uncured. Vertigo or dizziness and singing in the ears, are also distressing symptoms to the dyspeptic, alarming him with fears of apoplexy, while numbness of the limbs and a powerless sensation of some of them, causes him to have serious apprehensions of paralysis. All these symptoms disappear when the indigestion is removed.

The head-ache does however, sometimes increase into neuralgia or *tic-doloureux*, the vertigo into fits, in every symptom equivalent to epilepsy, and the numbness into partial paralysis, which own their cause, in their amenability to the same remedies which remove indigestion, while they will continue and recur so long as the Dyspepsia remains.

I was called in, at one time, to see a young lady about twenty-three years of age, who suffered most severely from *tic-doloureux*; the agony was extreme, as all can say who have once suffered from that terrible affliction. It had then lasted without intermission for more than thirty hours, and had been only aggravated by the topical remedies applied. The history of her case was, that for some years she had

suffered from these attacks, sometimes with an interval of six months between them, but often with only six weeks or two months of perfect intermission. Occasionally fomentations of poppy-heads had assuaged the pain, at other times cold applications were most comfortable. Her general health was not very good, but although delicate, she was seldom ill, except with these attacks; her appetite was rather uncertain; her sleep pretty good; her bowels were, she said, regular in their action; her menstrual function regular, but rather profuse, at the same time there appeared no connection between these attacks and her periods. On looking at her tongue, it was pale and slightly furred at the back, her pulse was rapid but small, and she was bathed in a profuse perspiration, from the pain she was suffering.

On examining her abdomen, I found it slightly tumid, and from percussion, was convinced that there was a considerable accumulation of feces in the colon. I ordered the patient to have a large quantity of warm water injected into the bowels, while she was lying on the left side, and remained in the house to see the result. When I was summoned to the room, I found that the remedy had perfectly answered my expectations: the young lady was sitting up in bed free from any pain, and astonished at the suddenness of the change. A large quantity of small, hard, greenish-looking lumps, had been passed, having a very foetid odour. By

watching the case for a short time, enjoining a careful attention to the state of the bowels, and advising the use of the enema, to be repeated every three weeks or a month, for some time, this patient was completely cured, and for two years has had no return of her painful disorder. It often happens, that while these hard fæcal lumps are accumulating in the colon, and causing all this disturbance, the bowels may be acting slightly each day, or even be relaxed, and thus the patient be deceived into a belief, that he rather requires an absorbent than an aperient.

Since the occurrence of this case, I have seen many others experience a like relief from the same means; and I am convinced that it is a frequent, though not the sole cause, of severe neuralgic pains, both in the head and in other parts of the body.

Epileptic fits are by no means unfrequent accompaniments of a weakened state of the digestive apparatus, especially in children, and it becomes of great consequence to prevent their recurrence, lest the habit should become strengthened as years increase, and the disease assume a periodic and incurable form. If you produce vomiting by laying a grain of tartar emetic on the tongue of a patient, during a fit of Epilepsy, you generally find the stomach overloaded with some undigested and indigestible substance, only half masticated, the fit often passing off, so soon as the stomach is emptied. The

same causes which produce convulsions in infants, will eventuate in Epileptic fits in young persons about the age of puberty, or a little beyond. Where once these fits have occurred, all excitement should be carefully avoided, and a light nourishing diet, together with gentle out-of-door exercise, be insisted on; horse exercise is to be especially recommended, while, as far as possible, the mind should be diverted from dwelling upon the disease, by removing the patient from the spot where his fit has occurred, and giving him thorough change, and also, by placing him away from those who have been witnesses of his former attacks.

These means, and a careful attention to the digestive organs, offer the best chance for the avoidance of attacks for the future, and the habit once broken, the liability to recurrence is much diminished. I have myself seen many cases, where no fit has occurred for years, while the patient's general health has remained unimpaired, but where an attack has immediately followed a fit of indigestion, caused by some departure from the usual habits of the patient.

I remember a case, in which a man of forty-five was seized with an Epileptic fit, brought on by his attendance at a public dinner, after he had been free from an attack for more than twenty years; similar instances are of common occurrence.

In almost every case of its appearance in the young, except where it happens as a consequence of

a blow on the head, or from some cranial disease, we can trace the origin of Epilepsy to a neglect of some part of the digestive function, often from over eating, and improper mastication of the food, but sometimes from insufficient rest and irregular meals; the history of the case very frequently being, that after having been out to a late party over night, the little patient has next day fallen down in the fit. Where it has thus arisen, and where so plain a connection exists between cause and effect, we may almost always give a very favorable opinion as to its termination.

Facial Paralysis, that peculiar and disfiguring complaint, in which the mouth and all the features are distorted on one side, while on the other the muscles remain in a perfectly passive state, is a not infrequent complication of some forms of Dyspepsia. Its most frequent causes are, perhaps, cold, or a blow; but it not seldom occurs where it can be traced to neither of these, and where the state of the stomach offers a clearer reason for its appearance. A patient called upon me one night, saying, that on going home from a friend's, where he had been spending the evening, he had experienced a difficulty of utterance and a cold numb sensation of the right side of his face. On reaching home, he perceived his face distorted, and immediately came to me. The saliva was trickling from the right corner of the mouth, his utterance was very indis-

tinct, his tongue drawn over to the left side of his mouth, he was unable to close the right eyelid, and in fact the whole right side was as passive as though formed of wax, or of clay, while the left side was full of activity.

The patient was naturally very alarmed; but, as it was his first attack, and as I found he had been living rather too freely, and that his bowels had been very irregular, I looked upon it as caused by some intestinal irritation, and gave him a favorable prognosis. I at once ordered him a dose of calomel, and to take an aperient in the morning; these acted freely, and two days after, every sign of paralysis had passed away. A few days abstinence, and a little after care, removed every sign of Dyspepsia, and restored him to a state of health, to which he had for a long time been a stranger. In fact, the warning was not thrown away upon him, and he became, for the future, particularly steady and regular in his habits of life.

Passive Dyspepsia, long continued, seems to favour all nervous diseases, and even when cold or a blow appears to have been the immediate exciting cause, we find that the patient has been previously weakened, either by enervation or indigestion, and that the whole system, and especially the skin, is relaxed and atonic. The general feature of all this class of disease is, pallor, languor, and general debility,

which has existed for some time previous to the nervous attack.

Enervation and indigestion, particularly favour the approach of Hysteria in the fair sex; nor is this a complication of disease to be slightly thought of, or to be received with the half ridicule, which is so often called forth, by its mere mention. It simulates so many other diseases, and causes so large an amount of suffering, as to deserve far greater notice than the sketch we can give in this little treatise, and may with truth be called a Protean malady. The chief symptoms of an hysterical fit are well known; severe pain in the head, the sensation of a ball in the throat (*globus hystericus*), fainting, &c. but occasionally it takes wilder freaks, and appears under far more formidable forms.

I have now before me notes of the case of a young woman, in which it simulated that form of Tetanus, called Emprosthotonos. The patient was thirty-two, was in the lower rank of life, and had but recently (three months and a half) been confined; she had never regained her strength, and was pallid and anxious looking; her blood was evidently wanting in nutrition; she had for some time been suffering from passive Dyspepsia; her appetite was bad, and her bowels constipated, her tongue pale and indented at the edge, her pulse weak and frequent. Her attacks occurred every three or four days, commencing with pains and great heat in one finger,

this gradually extended to the flexor muscles of the arms, which became firmly bent and rigid, and then passed by degrees to the neck, body, and finally the limbs, producing the same effect, bending the body, together, with all the force of muscular spasm, so that her chin rested on her knees; the pain became gradually more intense (until the fit reached its climax, which would occupy from two to four hours), and was of a crampy nature, and excruciating, to use her own expressions. This state of spasmodic contraction would last half-an-hour, after which, she would break into a profuse perspiration, and the muscles would relax, leaving her very exhausted and weak. I ordered her an aloetic purge, which acted freely, and afterwards continued a tonic, combined with an aloetic. Three days after I saw her first, she was threatened with a fit, but it passed off without reaching the climax. I ordered her to receive daily a gentle current of electro-magnetic fluid through the arms; she describes the sensation which she experienced under its influence, to be similar to the commencement of one of her fits. She remained under my care for about seventeen days, when, as her general health was decidedly improved, and she had no return of fits, she discontinued all remedies, and remained perfectly cured.

This is only one of a hundred forms under which Hysteria presents itself to our notice; in all cases the indications of treatment are the same; *relieve the*

immediate symptoms, and *remove* the *Dyspepsia* and *Enervation*. It is a disease which is the peculiar curse of over civilization, and of an artificial state of life—it rarely, if ever, makes its appearance in those, who have not previously suffered from both Indigestion and Enervation to a considerable degree. It is closely connected with Hypochondriasis, and occurs in women, under the same circumstances as would produce that disease in men.

Chorea, or St. Vitus' Dance, is another nervous disorder, which although it may arise from the effect of a blow, or from a sudden fright, is far more frequently caused by some intestinal irritation. It rarely occurs after puberty, but generally from the seventh to the fifteenth or sixteenth years; continued indigestion, constipated bowels, or some irritation of the alimentary canal, such as worms, etc. are generally its exciting cause.

I shall best describe the disease, by detailing a case which came under my care in the year 1846. K. B. a girl of thirteen, had been for some time subject to Chorea; her father was a farmer residing in Hampshire, and the child was sent to London for advice (I was at that time practising in the Metropolis, which ill health afterward compelled me to abandon.) When I first saw her she was unable to keep her limbs quiet for an instant—perpetually jerking, first her hands, and then her feet, in different directions; the muscles of her face also were

full of activity, the mouth being now drawn up as if smiling, now depressed as if sorrowful; when asked to put out her tongue she was some moments before she could comply, and then rapidly pushed it out and back, shutting her mouth with a jerk, like the spring of a knife. No doubt every symptom was much increased by the nervousness of first seeing me, and by the fear lest I should scold her, as her parents had injudiciously done in the first instance, in ignorance that the child was suffering from disease. She was pale and anæmic, her appetite very uncertain and capricious, the bowels constipated, and the fæces hard and dark coloured. I ordered her a light diet, to omit tea and coffee, to take a gentle alterative twice a week, and to take every morning a small dose of castor oil for three days in succession. The fæces assumed after that time a far better colour and character, and by continuing the alterative, and giving her a gentle tonic, she improved gradually, and in a fortnight she was nearly well, and was sent back into the country; but, being the only girl in a large family, she was given her own way, was allowed to eat and drink as she liked, and soon became as bad as before. She was a second time sent to London, and a second time was cured, and this time was allowed to remain for three months at the house of an aunt residing in town; she remained quite well, and has had, so far as I know, no further return of the complaint, and

as her catamenia appeared soon after her second return to the country, I hope that no recurrence of the disorder is likely.

The irritation produced by tape worm often induces either chorea or epilepsy; this, however, requires specific treatment, and I mention it merely as an example of the power of irritation of the alimentary canal, to produce serious nervous disease.

A patient with Dyspepsia of the passive form will very often consult his medical attendant for supposed disease of the heart, which he has much dread of, from frequent palpitations which he experiences after meals, and because so soon as his attention is drawn by this symptom to his circulating system, he has, on feeling his pulse, discovered that it intermits. By stethoscopic examination we are soon able to set his fears at rest, as, in almost every instance, we find these symptoms induced by sympathy with a disordered stomach. A young friend of mine who had suffered severely some years before with jaundice, and had since had a severe attack of rheumatic fever, had great fears that he had disease of the heart, which the history of his case did not tend to allay; on examination I could discover no signs of structural mischief, and finding that the palpitation came on usually about an hour after a meal, and that the intermittent pulse was not persistent, I attributed these symptoms to some part of his diet disagreeing with his weakened digestive

organs. I ordered him to eat but little vegetable, except potatoe, and to omit both coffee and tea, taking either cocoa or chocolate instead. Under this system of diet he improved very rapidly, lost the intermitting pulse, and gained both health and strength. I saw him some time ago, and found he had had, for several years, no return of these unpleasant symptoms.

It is not always the same system of diet which causes these ailments, but by carefully trying the discontinuance of different kinds of food, and substituting others in their stead, it is easy to discover which is the peccant matter, nay, even the same diet which at one time causes indigestion, may at another be the most appropriate and nourishing for the patient.

Thus far we have briefly considered the effects of solid matter irritating the alimentary canal, and sympathetically affecting other parts of the animal economy ; but indigestion often causes the evolution of various gases in the decomposition of the food, which may be productive of pains and evils in no way inferior in point of either danger or inconvenience to those produced by the former causes.

Great inconvenience to the respiratory and circulating systems, is often thus produced, as witness, severe fainting fits and asthma, and the pains and cramps arising from the distention of the abdominal viscera, is often acute and sometimes even excruciating.

ating. Asthma is one of the most distressing disorders of the dyspeptic, the suddenness of the attack, the alarming sensation of suffocation, the very time at which it most usually occurs (in the night), which adds not a little to the fears of the patient when first seized, all ensure a degree of attention to this disease, which is often denied to others of equally serious importance, but of less formidable aspect. Patients will sometimes tell you that they have frequently changed their residence, in the hopes of getting rid of this troublesome complaint, and that, although they had for some months been free from its attacks, yet after a while the disease returned, they therefore abandon all hope or even intention of getting rid of the disease, and are quite satisfied with being able to rid themselves of the severe symptoms rapidly, when they occur. Now the fact of the patient having benefitted at first, by every change he has made, although he afterwards relapsed, is one of the most favourable signs in his case. It clearly points out that his asthma depends upon his general health, and that if this were good, he would never be troubled with the other. Such a patient may be entirely cured, by strict attention to hygienic rules.

It is very unfortunate for the reputation of the physician, as well as for the health of the patient, that people generally hold such extravagant notions of the meaning of the word "cure." Most persons

fancy that when cured, they may relapse into their old habits, and with impunity continually break the general laws by which health is governed; but when we tell a patient he is cured, we only mean to convey the assurance with the caution, "go and sin no more." We do not mean that he may indulge to excess in the pleasures of the table, or that without fear or danger he may attend heated assemblies prolonged far past midnight, or that he may immure himself with books or other sedentary amusements for days together, without out-door air and exercise, or that he may eat improper food, or take his rest, his meals, or his exercise at improper times. The asthmatic patient will generally rise late, eat little or no breakfast, lunch early, dine late, and have tea immediately after; or he will dine early, and indulge in a supper better fitted for a dinner, and make it his heartiest meal. His powers of digestion are always feeble, and he should be proportionably cautious how he abuses them. While he has no Dyspepsia, he will have no asthma.

Where the inconvenience to the respiratory system does not amount to asthma, it will occasionally produce a short sharp cough, especially in the morning; sometimes this is a very early symptom of Dyspepsia, and is passed unheeded, being considered by the patient an "habitual or constitutional cough," and neglected accordingly, until the disease of which it is symptomatic, has increased to a fearful extent. I have

known two fatal cases of ulceration of the pyloric orifice of the stomach, in which this warning cough had for years existed unheeded.

In all who have a predisposition to consumption, this herald of danger should be promptly attended to, although as it generally passes off immediately after breakfast, the patient himself, is scarcely conscious of its existence.

Where the distention of the stomach by flatulence is extreme, the pain in the stomach and side, which we have before noticed, as one of the symptoms of Indigestion, often assumes a violent character, so severe, as to deceive the casual observer into the belief that it denotes inflammation. The pain appears however, to be of a neuralgic character, and to depend upon mechanical distention, for upon relieving the flatulence, the pain at once subsides, and in general some slight antacid prevents its return. While it lasts, the pain extends over the whole abdomen, round to the back, and sometimes to the shoulders, neck and head, and occasions intense agony; this is generally greater in persons of a sanguineo-nervous temperament, and is connected more frequently with acute than with passive Dyspepsia, as in the latter the whole system being more relaxed, the viscera and muscular system are capable of a greater amount of expansion, and yield more easily.

Besides these more recognised and recognisable

complications, there are many other of slighter import, yet which are sufficient to render the sufferer an invalid; cases in which one or other of the symptoms mentioned in the previous chapter upon Dyspepsia, are thrown prominently forward, while the others remain in abeyance. Thus, head-ache may become a prominent and frequent evil, yet the patient otherwise may suffer only from a degree of languor. In other instances pains in the bowels either recur many times in the same spot or move from place to place; or nervous sensations and feelings, and peculiar excitability, may be the sole annoyance.

In all these cases, it is of importance that the real cause of the evil be discovered, and that the patient be submitted to proper medical treatment; as neither will local remedies really cure the bodily symptoms, nor will moral treatment by itself remove those which chiefly affect the mind and nervous system. "True happiness is only to be found by those possessing a healthy mind in a healthy body," said a philosopher, and this is an axiom the truth of which none will deny, who have suffered a depreciation of health in either, and afterwards have recovered it, in its full vigour and power.

There are fits which attack the Dyspeptic, which do not amount to epilepsy, but are nevertheless alarming to the patient; they seem to be a kind of

day night-mare, if one may use the expression. There are also nervous twitchings and slight muscular spasms, which fall short of St. Vitus' dance, and want of power in other parts of the muscular system which do not amount to paralysis. None of these will need particular mention, the cause of all being the same, the treatment will only be varied, according to the intensity and suddenness of the seizure.

Before leaving this subject, I would say to any general reader, who may chance to peruse these pages, that although Dyspepsia be so often the cause of these serious nervous disorders, yet, as they sometimes depend upon structural mischief, he must not in consequence, look upon them as of little importance. It is rather my hope to lead him to a fuller conviction of the great importance of correcting that state of body which we call Enervation, before it extends to actual disease, or if indigestion have become imposed upon it, of losing no time in having the Dyspepsia cured before it has become fully developed, or before it has so fully broken down the powers of life, as to leave the body an easy prey to the morbid impressions of more active and fatal diseases.

CHAPTER IV.

ON THE PRESERVATION OF HEALTH.

THERE remain now to our consideration two subjects of paramount importance: the preservation of health, the science of which is called Hygiene, and the cure of disease.

Under the first head may be included the correction of hereditary tendencies, and the recovery of health, after the removal of disease.

Under the second, we shall consider the treatment of diseased function generally.

There are certain conditions which must be fulfilled, in order to preserve the body in the full and healthy exercise of all its functions.

1. The respiration of pure air containing its proper amount of oxygen.
2. A diet adapted to the circumstances in which the body is placed.
3. Food well comminuted by mastication before entering the stomach, and the times for meals judiciously chosen.
4. An amount of exercise sufficient to equalize the circulation, and to assist the excretions.
5. Sleep.

6. Cleanliness, and a healthy tonic skin.
7. Well adapted clothing.

We will consider these separately.

1. The respiration of pure air, containing its proper amount of oxygen, is required, that the blood may become arterialized, this being as we have already shown, the last and most important change of the aliment, which has passed previously through the different processes of digestion, and after having first been reduced to chyme, and afterwards to chyle, is at last mixed with the refuse blood, and conveyed to the heart, from whence it is thrown into the lungs, there to be exposed to the action of the air.

In the mixture of oxygen with the blood, two purposes are to be answered. The first is, that those particles which are useless for the reparation of the body, should be removed by combustion with the oxygen, and be expelled from the lungs, in the shape of carbonic acid gas. The second, that a portion of the oxygen should enter into the blood, giving it vitality, and rendering it fit to renew the various structures through which it permeates.

During these processes, the combustion of the carbon in the oxygen, furnishes us with abundant animal heat, while that portion of oxygen which enters into the blood, stimulates the action of the heart and arteries.

For these general purposes, a strong and healthy man requires to inhale at each respiration twenty

cubic inches of pure air (containing twenty-two per cent. of oxygen, of which he consumes nearly half), and as he expels a considerable quantity of carbonic acid gas, which becomes mixed with the air around him, and as his skin also exhales impurities, we may conclude that he will require the constant supply of ten cubic feet of pure air, to be furnished him every minute*. If the supply be below this standard, we should expect the health to be diminished, and serious disease, or even death to result, if the deprivation were very great, or long continued.

The tragedy of the black-hole at Calcutta, will always impress the truth of this by its painful and horrible history, and the squalid and miserable appearance of those who inhabit crowded and ill-ventilated rooms in our metropolis and other cities, and the great amount of mortality amongst such, compared with those of the same class, who are not exposed to the same evil influences, makes these examples familiar to every observer. Among children the effects of bad air and badly ventilated apartments are more apparent than in the adult. Their circulating system is more active, and their respiration more rapid; with them too the arterial blood has not only to repair the old structures, but it has also to form the new; the bones have to increase

* This calculation is taken from Dr. Reid's Work on Ventilation, and from the last Report of the American Medical Association, on Public Hygiene.

both in size and solidity, and the muscles, and every other part of the system, to enlarge and gain in tone. The evil effects, then, which merely prevent the due repair to the frame of the adult, may and do hinder the development of the child, and often cause structural deformity, such as the rickets, or some spinal malformation. Diseases, also some of which proceed from hereditary tendencies, are allowed to develop themselves when the blood is unhealthy, such as scrofula, mesenteric disease, and consumption.

This has been plainly shown to be the case, in some large public schools, and in other buildings, where several hundred children have been crowded together, in rooms possessing inadequate ventilation; and in these instances, scrofula, which was previously very frequent and fatal, entirely disappeared on the introduction of Dr. Arnott's ventilators, and on attention being given to other means of insuring an adequate supply of fresh air. The importance of ventilation should be the more constantly brought before the public, from the carelessness with which so many regard it. If the sole effect of ill ventilation were to shorten life, that would appear a sufficient reason for drawing universal attention to the means of remedying it; but the evils it produces are wide spread in their ramifications, and destroy, or seriously interfere with the health and happiness of thousands, for many years before it consigns them to their premature grave. Pure air in the bed-

rooms of a house is the most important as well as the most neglected consideration, in the healthy management of a household. About eight or nine hours out of every twenty-four are spent in this apartment, with doors and windows both closed, and often with the chimney blocked up, or covered with a board, or some other contrivance; while in the servants' rooms, and night nursery, it not unfrequently happens, that there is no chimney at all. In our changeable and moist, chilly climate, I admit it would be unhealthy to have an immediate connection with the open air, during bad or wintry weather, but since the cheap and scientific invention of Dr. Arnott, there remains no excuse for badly-ventilated and unhealthy apartments. They are so generally known now, that there is no occasion to describe them, they are to be had at any plumber's shop.

A sickly family need no longer be the fear of the young mother, who (with other means to be mentioned afterwards) has her nursery in a good room, well-ventilated, instead of devoting, as is often the case, the worst suited of all the apartments to be the abode of infancy. The free circulation of pure air around us, increases our appetite, while confinement in close apartments diminishes our power of taking sufficient food for the support of the body in health, and from this cause, we may trace the want of appetite for breakfast, which is one of the first

symptoms of a loss of health, or of commencing Enervation. In nearly every instance, where persons suffer from this symptom, they would find, were they to return to their bed room, after having been in the pure air, that it was close and unpleasant, evidencing, that the supply of fresh air had been insufficient for the purposes of health during the night. To such persons, let me seriously advise, if they would avoid the necessity of fees to their physician, to at once fee the plumber to cure their room. The avoidance of disease is always easier and more satisfactory than its cure. Another evil of insufficient circulation of air around the person, is the increased liability of the patient to cold, and other morbid influences, through want of tone in the skin.

Where noxious gases exist, from any defect of the drainage, or from the illness of any member of the family, chloride of lime should be used as a disinfectant; a saucer containing a little of the powder, covered with water, should be placed outside the door of the room in which the patient lies, and another beneath the bed; all excretions should also be immediately removed from the chamber, which should have the air frequently changed, and be kept scrupulously clean, and as free as possible from furniture, carpets, or heavy curtains.

Under the second head, viz. the diet adapted to the circumstances in which the body is placed, we

must first consider the food proper for its nourishment during its different stages of developement. During infancy, childhood, youth, manhood, and old age—at each of these periods a different diet will be needed by the exigencies of the body; and at the intervening states, when infancy is verging into childhood, or youth into manhood, etc. etc. a mixed diet, partaking of that proper for both periods, and accordingly modified, will be the best.

For the first few months of infant life, provided the mother or nurse be in good health, no artificial food should be allowed; after the fourth month a little light food may be added—boiled milk and water, with a small quantity of baked flour, slightly sweetened with refined sugar, is the best adjunct that can be used, and this may be alternated with a little tapioca, arrowroot, or sago, boiled in the milk and water, which should be strained before the infant drinks it. The alimentary canal of young children is peculiarly susceptible, and is often rendered irritable, and the foundation of future disease laid, by the officiousness of nurses and others having the charge of them. A prejudice exists in the minds of some, against allowing the child to taste its mother's milk for the first day, or even until after the second; they are afraid lest the milk should give it the stomach-ache; this prejudice is most pernicious in its effects upon the infant, and often also upon the mother; there is in the bowels of

infants just born, a small quantity of effete matter, which the early milk of the mother removes, by exerting a slightly purgative effect, and is at once the natural, and the best *medicine* the child can take. Castor oil, or sugar and rancid butter, are generally the artificial substitutes, by which some attempt to improve upon nature; against these, I would warn my readers, as likely to commence a long series of ailments in the child, by entailing upon it, as soon as born, irritation of the mucous membrane, and its consequent evils. For the first three hours the child requires no nourishment, the gruel which is sometimes prepared, should be most carefully avoided; about the third or fourth hour, according to the severity of the confinement, and the exhaustion of the mother, the child should be put to the breast, as this, beside benefitting the infant, very materially assists, by sympathy, the contraction of the womb, and diminishes the chance of extensive hæmorrhage.

Where, from weakness or from inability, the mother cannot suckle her offspring, a wet nurse should be chosen, whose milk is, as nearly as possible, of the same age as that of the mother of the infant for which she is required. Where this cannot be procured, boiled cows' milk and water, with a little sugar, or asses', or goats' milk, are the best substitutes.

After weaning, as soon as the teeth are suffi-

ciently grown, the child may gradually partake of more solid food, such as bread and broth, or of a light vegetable diet, with broth and plain puddings; this should, by degrees, become of a more solid nature, the child's dinner, consisting, however, of but one dish of meat, lest it should be tempted to over eat itself. No artificial seasoning should be allowed to stimulate the appetite. Milk, farinaceous foods, and vegetables, should form the staple diet of the period from infancy to youth, together with broths, and a moderate quantity of meat; tea, coffee, wine, or other stimulating or intoxicating drinks should be carefully withheld by those who wish to see their children grow up fine and healthy in their animal frame, and free from nervous and dyspeptic diseases. During childhood the circulation is very rapid, and the nervous system easily acted upon by any stimulus, we should by a bland nourishing diet, tranquillize both the circulation and nervous energy, in order that they may steadily, and with an ever equal force, perform the great functions which now fall upon them, viz. the gradual perfection of the frame, the addition of size and strength, and the due and relational development of every part.

Before passing to the next and very important period, that in which the youth becomes a man, and the girl, a woman, I cannot omit making an extract from a work which now lies before me, en-

titled "The Report of the American Medical Association of Public Hygiene," a work, which from the care with which it has been prepared, from the vast extent of country over which its observations are extended, and from the consequent variety of climate and circumstance under which it contemplates the diseases and state of health of the human race, is one of uncommon value and utility. In this work, in answer to the query—"What influence is produced by the extensive use of tea and coffee among persons under the age of puberty?" the report says, "The general influence is injurious, causing undue excitement of the vascular and nervous systems, and functional derangement of the digestive organs, particularly the liver. Tea acts more directly on the nervous system, partly because almost all the tea in the market is poisoned by deleterious agents used in its preparation. Coffee has an almost immediate injurious effect on the liver, and as that organ in the child is relatively larger than in the adult, it may be held that the younger the child the more pernicious the use of the article. Both tea and coffee tend to enervate and derange the whole system, and to produce an effeminate race."

During the period from childhood to manhood, from the seventh to the twenty-first year, an increasingly animal and generous diet should be observed; yet, as a general rule, but little animal food should be taken except at dinner, and that little, if any, should be at

breakfast—a small quantity of cold meat or an egg with the breakfast—a plain dinner, with one dish of meat, some farinaceous or fruit pudding, vegetables, etc.: a light meal afterwards, which, from conventional usage we call tea, but from which I would advise that herb to be banished or very sparingly used at, and a light repast afterwards, are the proper number of meals for the healthy adolescent. The best hours for meals must depend much upon circumstances, but as a general rule, breakfast should begin at eight, dinner about one (allowing four hours for the completion of digestion and one hour for rest to the stomach), tea at five or six, at which very little should be eaten, and a light supper at nine, retiring to rest between ten and eleven, would form, in most cases, the most convenient and appropriate routine. The adult may have a wider range of diet, but plain roast and boiled meats are the most digestible food, and do not tempt us to overload the digestive organs; vegetables and fruit in moderate quantity; and as beverages, if by custom they have become needful, or if exhausting occupations call for their use, a little bitter ale or weak wine and water, form the best artificial stimulants which can be taken. In the adult the circumstances by which he is surrounded, the amount of exercise he takes, and the climate in which he lives, will guide him in the choice of times for his meals, and

in the quality of his food. These considerations will be afterwards entered upon.

I must here make another short extract from the "Report" before alluded to; it is in answer to the query "What is the influence of the substitution of the luxuries, tea and coffee, as a food, upon the health of the labouring classes?"

"Injurious. They act as slow poisons, the effect is more perceptible and more easily traced to its course than in the fashionable devotee, for its effects are not modified by other deleterious practices and agents."

Although I do not doubt that the substitution of tea and coffee for other stimulants, and the indulgence in them to excess, is deleterious, I am not therefore prepared to condemn them when diluted and drank with a considerable quantity of milk, so that they should rather seem to flavour and give a decided taste to the milk, than make themselves felt as powerful stimulants. I doubt not that the indulgence in strong infusions of either, is productive of a large amount of dyspeptic and nervous disease, yet their use is now so general, that it would be fruitless to attempt to banish them; indeed, whoever attempted such an innovation, would I fear be taxed with attempting to upset the whole social order of society.

The tea-table has had a wide-spread civilizing influence, and has increased the power and authority

of the fair sex to so great an extent, in giving them a meal of which they are the paramount presiding genii, that he indeed would be bold, who would enter into the lists in a tournament against the Chinese infusion. Let us then warn against its abuse rather than forbid its moderate employment.

In the aged, we must somewhat return to the diet of adolescence, and as age advances, to that of childhood.

Mild unirritating food, very little strong meat, but broths, soups, etc., will be found the best for persons past their sixtieth year. If an old man continues to eat heartily of generous food, he will, if his digestive powers remain strong, make more blood than is needed for the repair of the body, and he will become corpulent, apoplectic, or gouty; or he may have concretions, such as are called gravel or stone, form in some of the urinary passages, or he may have ossification of the arteries, a most dangerous perversion of the nutritive process, take place; if, on the other hand, his digestive organs be weak, he will cause Dyspepsia and a host of evils, by introducing into the stomach stronger food than it can digest. As age advances, the use of seasonings, and the moderate introduction of stimulants, may become advisable, especially if general languor exists.

At all ages of life, certain modifying circumstances will occur, requiring slight changes of diet. When

a man, either for business or pleasure, is taking a large amount of out-door exercise, and undergoing much bodily fatigue, his daily waste by perspiration, &c. will require generous living, to compensate for these losses ; he will have need of a large supply of strong meats, and, when exhausted, of the use of artificial stimuli. Climate also necessitates an alteration in the amount and quality of food. In wintry cold weather, we require stronger food, and a more abundant supply of it than in summer ; and nature has at this last season, by her bounty, supplied us with the food best adapted for it, viz.—vegetables and fruit. Liebig was the first to point out the reason why, in cold climates, we should require a larger supply of meat, and of fatty and oleaginous matter as food, and should further, not only be able to bear, but even should relish an amount of alcoholic drinks, which would be both distasteful, and also dangerous, under more genial and sunny skies. The body requires to be kept constantly at the same internal temperature, viz.—ninety-eight degrees. Heat is supplied to the body, by the combustion of carbon in the oxygen, to which it is exposed in the lungs. In order to support the temperature of the body, carbon must be supplied, and we must, therefore, eat matters containing large quantities of that substance, when we expose ourselves to the effects of cold.

The practical examples of this theory are, that

the inhabitants of cold countries, as Lapland, Iceland, &c. eat large quantities of fat and train oil, while in India, and other hot and tropical climates, a diet almost exclusively vegetable and fruit, is both most agreeable, and most healthy, to the inhabitants. In beverages also, thin weak wines, or cold water acidulated, are luxuries in the one country, and ardent spirits, in the other.

When the body is under any unusual excitement, the digestive function is always weakened, the nervous power being diverted from it. Thus, when great grief or joy, or any exciting or depressing passion, or emotion occurs, the food should be small in quantity, and of the blandest and most easily digestible nature. So also when the body is under the excitement consequent upon travelling, the mind being diverted and engaged, by constantly new objects presented before it, the greatest care will be requisite; stimulants, strong condiments, &c. must be avoided; a little weak sherry and water will form the best beverage, and the diet must be simple, light, and nutritious. Many English who travel abroad for pleasure, and often even those who are seeking health, irretrievably ruin their constitutions, through a neglect of these cautions; they despise the light, thin diet of the countries through which they pass, and choose to eat northern foods in southern climes. Even this would prove less injurious, did they not also insist upon drinking the stronger

wines, and often even malt liquors. Numerous are the cases where our countrymen, in passing through that lovely and romantic tract of country from Rome to Naples, add to the excitement of the classical scenes which everywhere abound, and to the brilliant though irritating air through which they pass, the dangerous stimulation of the delicious wines which grow so luxuriantly on that volcanic soil, and thus, when they reach the southernmost city in Italy, instead of enjoying its beauties and exploring the most wonderful existing monuments of the ancient Romans, they are prostrated on a bed of sickness with brain fever or dangerous malaria, which but too often ends in mourning, a journey commenced with bright hopes and delightful anticipations, or sends home the invalid to drag out a few years of embittered existence, ere he sinks into an untimely grave. On this subject I can speak the more feelingly, having, in more than one instance, witnessed this painful check to the buoyant happiness of a travelling party.

3. The third division of the conditions on which health depends is, that the food should be well comminuted and moistened in the process of mastication, and that the times for meals be well chosen.

Mastication is the first process of digestion ; it is entirely voluntary on our parts, and, if improperly performed, may cause great distress to the stomach, and serious evil to the system at large.

By mastication the food should be thoroughly comminuted and mixed with the saliva, (which is involuntarily thrown into the mouth during the action of the jaws,) until the whole mass becomes well incorporated into an homogeneous pulp. The importance of the due fulfilment of this function cannot be exaggerated, yet it is very generally overlooked and little thought of. Epileptic and other fits often arise from its neglect, and the consequent imposition of work upon the stomach, which it cannot perform. If in the younger days, the rules of diet I have laid down be strictly enforced, the teeth will remain good and able to act in full force. A decayed tooth may as easily cause evils ending in premature death, as the "loss of a nail," mentioned in Poor Richard, "caused the loss of the horse." It is like losing one of the stones of an arch—the whole structure becomes weakened. In the young and middle-aged, bad teeth may only continue and increase the indigestion which has caused their decay, but in the aged, death is not unfrequently the result of their loss; so that this has been with justice looked at as one of the heralds, announcing approaching dissolution.

Since the introduction of artificial teeth, which has enabled many to continue the mastication of solid food, to a period of life at which they otherwise must have swallowed it whole, longevity is on the increase. Whether the dentist is really to claim

this fact as a triumph of his art, or whether it be due to a generally-improved system of Hygiene, we will not discuss; but as mastication is so absolutely necessary, even to the strong and healthy stomach, we may fairly suppose that some years are added to the lives of those who are thus enabled to save distress to the other digestive organs, when, by age, they have naturally lost some of their power and vigour.

The times for meals during adult age must depend upon the employments of the day, so long as the general rule is attended to, that four hours should be allowed for digestion, and from one to two hours for rest, to enable the stomach to recover its full tone. The absolute times of meals are of little importance, taking care that no very long interval between them is allowed when mental or bodily exercise intervenes. As a rule, eight o'clock for breakfast, one for lunch, six for dinner, and eight or nine for a light tea, will be found most conducive to health. Two of these meals may be taken with meat in the winter, and one in the summer and hot weather.

4. The amount of exercise must be tempered by the age and physical powers of the patient. In order that its full benefit should be experienced, it should never be carried to the point of fatigue and exhaustion. It should also be regular, winter and summer, and, to those who are in strong health, every day, wet or fine,

should afford some degree of out-door exercise. By the delicate it should never be taken out of doors when either rain or snow prevent it, yet there are few days on which a person resolved to take exercise cannot find half an hour of weather fine enough to permit it. Gentle bodily exercise, and the change of air procured even in the walk of a mile, varying it as much as circumstances will admit of, will have a very beneficial effect in equalizing the circulation and promoting the healthy action of the skin and other excretory organs. It also assists the peristaltic action of the bowels, and thus prevents constipation and its accompanying evils. It gives the purest air to the respiration, and thus improves the blood, and gives us both a healthy appetite and the power of digesting well, what we eat. In cities exercise is often neglected from a prejudice that the air is so impure that exercise in it does no good. This is a great mistake, for the air outside a house is always purer than that within it, as must be very evident when we consider that the only renovation of purer air is supplied to a house from that which is outside it; but even were this not the case, the exercise would alone repay the trouble, by its bringing into activity the whole muscular system, and by the good effects before enumerated.

A free exposure to the light, and to the sun's influence, has a great effect in diminishing the tendency to disease. The sunny side of a street should

always be chosen as a residence, from its superior healthiness. It has been found in public buildings, barracks, etc., that those are always the most healthy which are the lightest and sunniest. In some barracks in Russia, it was found that in a wing where no sun penetrated, there occurred three cases of sickness, for every single case which happened on that side of the building exposed to the sun's rays. All other circumstances were equal—such as ventilation, size of apartments, number of inmates, diet, etc.—so that no other cause for this disproportion seemed to exist. In the Italian cities this practical hint is well known. Malaria seldom attacks the set of apartments or houses which are freely open to the sun, while on the opposite side of the street the summer and autumn are very unhealthy, and even dangerous. I have before mentioned the greatly-increased danger of passing malarious districts in the night, as the demon then stalks forth in all its power. The peasants who cultivate such unhealthy lands always, where it is practicable, live and sleep in healthier parts, returning every morning to their labour, even where it is several miles away. You may often meet these peasants, both in Italy and Sicily, early in the morning, mounted on a donkey or mule, carrying their implements of husbandry.

5. Sleep is a most important provision of nature for the restoration of the fatigued and exhausted

mind and body. During its influence, the voluntary efforts of mind and body are suspended, the secretions and excretions are more tranquilly and equally performed; respiration is slower, and the heart's action full and inactive; the voluntary muscles and nervous system are perfectly still and at rest. After a healthy sleep we arise refreshed and endowed with new life, experiencing a pleasurable and exulting sensation, to begin again the toils and engagements of the new day.

The amount of sleep must be regulated by the age and the state of health. Infants require a very considerable amount of sleep, as the deposit of the renovating and formative particles takes place, to the greatest degree, during that time. Children and invalids also require a greater amount of rest than strong and healthy men. With children it is better not to favour sleep in the day, while they feel wakeful, or you may produce them sleepless nights, which will add to the troubles of their attendants, and injure also the health of the child. During childhood, from ten to twelve hours sleep is required; during youth from nine to ten; during manhood from seven to nine; during old age from four to six hours, is the utmost length of time in which it is advisable or safe for a man to sleep consecutively: he will, however, require to sleep half-an-hour or an hour at some other period of the day. There are many instances in which men have required consi-

derably less time for the restoration of their powers, and have found four hours rest daily sufficient. It will, however, as a general rule, be found that a man gains little by curtailing his natural rest; he will probably also curtail his existence, and thus, though he may live as many wakeful hours, as a man whose life has been prolonged beyond his own, he will have gained nothing in the end.

6. Cleanliness, which is necessary to the healthy state of the skin.

It is very difficult to decide which of all the conditions, previously mentioned, demands the most serious attention; certainly this last yields in importance to none of the preceding considerations. By the skin are exhaled many effete matters in the perspiration, which, if they be thrown back into the system by any sudden check to the action of this membrane, cause the most serious disturbance to the general health. It appears also that the external application of certain morbid poisons to the surface of the body, when the skin is in a weakened state, is followed by their absorption into the system generally, and that consequently they excite in it active disease; while, in its healthy and tonic state, the skin would have successfully resisted the entrance of the poison, and have formed a barrier against it, not to be easily overcome, unless the poison existed in more than ordinary strength, and its application were long continued.

I am inclined to believe that the greater activity and danger of malarious fevers in southern and tropical countries, is owing rather to the greater debility of the skin, produced by the intense diurnal heat, than to any increased power in the poisons themselves. Those influences, which in our own climate produce ague, are the causes in Italy and Africa of fevers of the same type, but of a severity unknown in our more northerly climates.

At Sierra Leone, and on the west coast of Africa, after the extreme heat of the day has passed, there falls a very heavy dew, and the change of temperature during the night is strongly marked and extraordinary. The black natives knowing the danger of exposing themselves to the outer air during this time, huddle together in their huts round a fire, which they say keeps off the evil spirit. They also anoint themselves from head to foot with palm oil, or other grease, which renders the skin impervious to the moist unhealthy vapour, that every where exists around them. With the Europeans, on the contrary, it has been the custom to use this time as the period of exercise, and to visit their friends. The consequences are well known in the widespread fame of the fatality of this possession. Returning from heated rooms to their own houses, they expose themselves freely to the cool and refreshing breezes, and retire to rest, not only without a fire, but with open windows, and thus experience the

full effects of the noxious night air, courting, as it were, disease and death.

Fortunately, these causes and the effects of stimulating beverages, and diet, are now understood; and it is to be hoped, that the melancholy loss of life which has until recently occurred at Sierra Leone, may be much reduced by the better understood rules for the regulation of health and preservation from disease.

Cleanliness and the frequent use of the bath, together with regular out-door exercise, are the best modes of invigorating the skin. This, as before hinted, was better understood and attended to by the Ancients than it is at the present day: wherever a Roman colony of any size existed, the baths were among the most conspicuous buildings, and beside these public edifices, every house of any pretensions was furnished with a bath-room. In Constantinople, and in all Turkish cities, the baths are very important places of public resort; the use of the bath, and frequent ablutions, being enjoined upon the inhabitants, by their religion, in the strictest manner; but amongst modern civilized European nations, it has fallen much into disuse since the overthrow of the Roman nation.

The bath should be commenced at the earliest period of life, and continued until the latest, as a daily habit, amongst those who desire health and longevity. With infants the water should be at first

warm, afterwards tepid, and finally, used at the temperature of the atmosphere, not however allowing it in winter to be colder than fifty degrees. As the child increases in years and strength, the water may always be used cold, care being taken that the application should never be sufficiently long continued to destroy the glow of warmth, which is a sign of the bath agreeing with the bather.

Where the skin is delicate, or the child weak, the surface should first be gently but rapidly rubbed with a dry, or warm dry towel, then a sponge dipped in cold water should be quickly passed over the body, washing every part, and the skin immediately rubbed dry with warm towels, after which the child should be quickly dressed. I have never known this form of sponge bath disagree with the most delicate, while I have often seen the skin regain a state of tonicity and vigour under this treatment, which has benefited the general health of the child in a remarkable degree.

The same system of daily morning ablutions of the whole body should be continued through life. In manhood, where it can be borne, the plunging cold bath or the shower bath, will prove wonderfully invigorating: I prefer the latter, because there are no circumstances likely to occur by which he may be forced to omit it, as it is made so portable as to be easily carried with the luggage while travelling. That which admits of most general use, however, is

the sponging bath, which may be used cold by the strong, and modified by the delicate, in the manner which I have suggested should be used for children ; warm baths at night I do not approve, they tend rather to weaken the child and to debilitate the skin, whereas those that I have mentioned, have an opposite and striking effect as remedial measures : where profuse perspiration is advisable, a warm bath or a vapour bath every night just before going to bed will have a powerful effect.

7. That the body should be clothed in such a manner as is best adapted to the climate it inhabits, is a very important consideration. In the arctic regions we find the inhabitants clothed with thick skins, and covering themselves with oil : in the torrid zone we also find men anointing their skins with oil to protect themselves against changes of temperature. With civilized nations flannel takes the place of oleaginous matters, as a non-conductor. It is an article of clothing which has become essential to civilized man at every period of his existence, and in almost all climates. It protects us, on the one hand, from the severity of the cold, and on the other from sudden chills when the skin is perspiring from great heat. I would advise an under shirt of real Welch flannel, to be worn by all, which should be changed at night. Where it can be afforded, a clean one should be worn every day, or second day, or at least once a week. As a rule, the infant requires

the warmest clothing, and next to the infant, the old man. In childhood the skin is delicate, and acutely sensible to cold, and a high temperature is absolutely necessary for the full performance of the processes of nutrition, which exist in their greatest activity in the infant and the child. This is the reason why English children improve so rapidly in appearance when removed for a year or two in their early childhood, to the South of France and Italy. Exposure to cold, with insufficient clothing, during infancy and youth, checks the growth and stunts the whole frame.

In the aged, the languid and torpid circulation cannot bear the depressing influence of cold, and its long-continued application will cause serious disease, and often even end in death. The extremities must be well protected from the weather in winter, or there will be great danger of senile gangrene, in persons far advanced in life.

To the middle-aged, I would merely repeat the necessity of flannel, by the use of which, in conjunction with the means before mentioned, many serious evils, as colds, rheumatism, inflammations, and congestions, may be avoided. In very hot weather, the outer clothing may be modified to the needful extent, without discontinuing flannel, for it is, at the time when the skin is most perspiring, that non-conductors, placed between it and the external air, are most serviceable. In Italy, they tell you to wear

flannel over the chest in winter, and over the stomach in summer, to avoid inflammation of the lungs at the one season, and of the bowels at the other. In my own opinion, it is better to always wear it. The finest Welch flannel is very light, and without adding much to the heat of the body, as effectually prevents its feeling the alternations of temperature, as though the heavier and coarser kind were worn.

At all periods of life it is of great importance, that during sleep the warmth of the body should be well kept up, as during that period the process of nutrition is most active, and the nervous resistance to disease, the weakest.

When a severe illness has left a patient more or less prostrated, the means before-mentioned in this chapter, as those tending to the preservation of health, must be used with some modification. A gentle and gradual exposure to pure open air, removing him to some distant spot from the seat of his disease, such as from the town into the country, or from the country to the sea-side, &c., will answer the first indication. Secondly, his diet must be apportioned to the degree of weakness, to which his digestive functions have been reduced, beginning with the diet fitted for young children, milk and bland farinaceous food, and by degrees, as the patient's appetite returns, consulting it, and gradually increasing, until the diet fitted for the healthy of his age, be reached,

Thirdly, a convalescent requires his meals more frequently than a person in health; his stomach cannot bear to receive much at a time, or nausea and vomiting might be caused; it is therefore necessary to take food in small quantities and often.

Fourthly, together with very gentle walking exercise, carefully proportioned to the strength of the patient (even if it were at first only a walk across the room), we should recommend carriage exercise whenever the weather permitted, and (in order to accustom the body gently to muscular exertion) strongly advise riding on horseback as soon as the patient could bear the fatigue.

Fifthly. Convalescents require much sleep, as nature has need to exert all her restorative powers. Like the infant, the convalescent should awake after every sleep materially stronger than he was during the preceding period of wakefulness. As he progresses toward the perfect recovery of his health, he will gradually diminish the amount of rest until it reach the natural standard.

Sixthly and Seventhly. The same remarks which apply to the delicate and to infants, will also be appropriate to the convalescent, as regards the use of the bath and clothing.

CHAPTER V.

ON THE CURE OF DISEASE.

THE last few remarks upon the treatment of convalescence, in the preceding chapter, apply with equal force to the correction of that weakened and atonic state of the whole system, which we call Enervation. By degrees, as the patient can bear it, cold affusion may be used with great effect, by either pouring cold water over the body, or the shower bath. Exercise of the arms with dumb bells, or other means, calisthenic exercises generally, and free and constant exercise out of doors, cannot fail to exert a most beneficial influence in strengthening the whole body, and especially the skin and mucous membrane. Of all exercise, that on horseback is most conducive to the recovery of strength, if it be not used too early. It brings into full activity every muscle, and gives us rapid movement through a large space without fatigue ; hence, it invariably produces an invigorating and exhilarating sensation, not to be felt under any other circumstances. A gallop over the downs is an excellent cure for bad spirits, and is a positive enjoyment, as well as most valuable remedial agent, which is more than can be

said of many other means usually recommended for the recovery of health.

In proceeding to the treatment of Dyspepsia, we will premise, that in the earlier periods of both its forms, there is a strong tendency to spontaneous recovery, if we carefully avoid and discontinue the exciting cause. If we arise in the morning with a furred tongue, and disagreeable taste in the mouth, together with slight headache, we must conclude that we have partaken of some over-stimulating diet on the previous day, and must use a more bland and simple one in its place, avoiding especially fermented or spirituous drinks. The relief to our feelings will always prove the reward of our abstinence. If we are feeling debilitated and languid, yet with a moist and clean tongue, with no thirst, and with a weak pulse, we may conclude that we require a more nourishing diet, and act accordingly. If, after a meal we feel heavy and oppressed, we may be sure we have partaken more largely of food than our digestive powers can bear. If, after having partaken of fermented liquors, we feel heat in the eyes, heaviness in the head, or thirst, we may be sure that abstinence from them is indicated.

Were we to pay greater attention to these little warnings of nature, we should be able, even where our digestive organs were feeble, to steer clear of absolute disease, and to enjoy excellent health, but unfortunately, habit and custom have ordained dif-

ferently, and that whenever our want of appetite warns us to eat little, we are accustomed to tempt ourselves to partake more largely by condiments, seasoned dishes, and the host of indigestion-inducers, called the "delicacies of the table."

When, by a thus obstinate inattention to the heralds of approaching danger, sent to us by friendly nature, we have produced a serious amount of general disturbance, we at last fly to medicine to aid us in our distress, and wish by it to obviate the necessity of abandoning those articles of diet so dear to us, though so hurtful to our health. We would wish to take the poison and the antidote, rather than to leave both untouched. We must therefore turn to the consideration of the treatment of Active Dyspepsia.

When a patient applies to us, suffering from this disorder, we generally find the mucous lining of his whole alimentary canal irritable and congested, sometimes almost running into inflammation. The first consideration is to remove constipation, if it exist, yet the administration of a strong aperient would materially increase the irritation already present. Some mild laxative should be administered. A dose of castor oil, or manna, and to assist it, two hours after its administration, to give a small enema of warm water (about half or three-quarters of a pint), or where there is very much irritability, to use weak gruel. Even where tenesmus, or slight

diarrhœa exists, I usually pursue this treatment, although, in that case, the dose of castor oil should be very small. After the first day, the bowels should be regularly kept open by very small daily doses of castor oil, or manna, administered every morning, for two or three days, and then by degrees alternating it with small enemas, and finally discontinuing both, as the bowels take on the habit of regular action.

Where the irritation has been great or long continued, the mildest diet must be used, meat for a few days, should be omitted, and soups or broths with farinaceous puddings take their place; ripe fruits also may be taken in moderation. For supper, sago, arrow-root or gruel, are both light and nutritious. Meat diet should be resumed, as the stomach becomes stronger. Small and repeated doses of alkalis, are sometimes advisable, together with taraxacum where the biliary secretion is deficient. Where the liver is very sluggish in its action, small doses of some preparation of mercury may be advisable. This medicine, like bleeding, is not found to suit the present phase of disease. The number of persons whose idiosyncracies forbid its use, seem to me to be upon the increase, and this I believe is to be attributed to a widely spreading depression of the physical powers, increased, if not entirely caused, by the greater employment of nervous energy upon mental pursuits, thus diverting it from the body ge-

nerally. There do, however, still exist, both certain states of the system which call for its occasional use, and certain constitutions in which no other remedy will act with the same power and success. Its maladministration has caused and may cause, so serious and long-remaining results, that no patient ought ever to venture to use it, solely upon his own authority.

Where vomiting, accompanied by distressing pains in the stomach, causes much inconvenience to the patient, I have often found bismuth given in a mucilaginous mixture attended with excellent success.

The hot dry skin will continue, while the mucous membrane remains irritated and congested, but the condition of both, may be much improved by the use of tepid spongings and occasional warm baths, previous to going to bed.

Where the patients' means afford it, change of air is very beneficial in preventing a recurrence of the disorder, when the worst symptoms are allayed. A winter in the south-west of England, or at Rome, or Pisa, will much benefit a patient, who has suffered from acute Dyspepsia. While travelling, he must pursue a mild unirritating diet, and carefully avoid stimulants. Mountainous countries, or bracing and exciting climates, such as Nice, Florence, or Naples, will greatly increase such a patient's maladies.

Indeed, except where the attendance of hypochon-

driacal symptoms, renders constant amusements and novel scenes imperative, the climates of the south of England, and gentle travel along the coast from west to east, will generally be found amply sufficient. In the west the patient will find the soft though damp air of Cornwall and Devon, soothing and balmy; as he gains strength he should gradually move eastward, in order to accustom himself to more bracing air, and to fix the improved state of health which he has just acquired.

Where passive Dyspepsia has existed for some time, we find it more difficult of cure than the active form. The body has become anæmic from the innutritious quality of the blood, constipation almost always exists, and flatulence will attest the weakened powers of digestion. All patients in this state are more or less hypochondriacal. The first attention, as in the previous form, must be directed to the bowels; gentle aperients, such as castor oil or manna must be given, with tonics; and enemas occasionally should be had recourse to, as before mentioned, but instead of water or gruel, a little chamomile tea, with or without a small quantity of decoction of aloes, should be used in their place. The gastric juice will probably partake of the general weakness, and should be strengthened by the addition of a little hydrochloric or nitro-hydrochloric acid, to the beverage usually taken at dinner. A diet slightly stimulating will be required; meat,

such as mutton and beef will be preferable ; vegetables, such as cauliflowers, &c. should be very sparingly eaten. Farinaceous puddings are good, and fresh laid eggs, either boiled, poached, or mixed with warm water, and a little wine, are very useful. Hard meats, such as ham, salt-beef and pork, should on no account, be eaten. No particular rule can be laid down for diet in this disease ; it must be altered to suit particular cases. With some persons even milk disagrees, while others find it most nutritious and easily digested. A beverage slightly stimulating, is in some cases of service ; bitter ale or weak wine and water, will generally agree the best. These means and the occasional employment of antispasmodics, and antacids, as symptoms occur indicating their necessity, will generally succeed in relieving the patient of all his most distressing ailments ; sometimes a mild anodyne is required, where sleeplessness is a prominent symptom.

We should also attempt to give tone to the system by friction to the skin, and daily ablutions, first with tepid and afterwards with cold water, by daily exercise in the open air, and by travelling. In this form of Dyspepsia, it is that change of air has its most marked and beneficial effect. A tour of Switzerland for the summer, or of the south of France and Italy in the winter, often makes the cure permanent, provided the patient attends carefully to rules while travelling. The utility of a sea voyage in this, or

in either forms of Dyspepsia, is of very questionable utility, and is indeed often positively harmful, from the irritation produced by constant vomiting.

Where diarrhœa has become a sequel to this disease, very small doses of castor oil from ten to thirty drops, in a little mucilage, with a few grains of pulv. ipecac. co. generally quickly relieve it, and without producing constipation; or a teaspoonful of olive oil, given with mucilage, or upon some aromatic water, will be found to have a good effect.

The cure of hypochondriasis consists, first in restoring the general health, and in correcting the state of the system which has caused it, and secondly in moral means, acting upon the mind. The first effect will be produced by curing the Dyspepsia, which has excited it; the second by change of air and scene, and by travel. It is of great object, not only that the patient should be removed from all the scenes connected with the existence of his disease, but that no mention should be made, by those by whom he is surrounded, of any circumstances connected with his malady. It is worse than useless to tell a patient that his evils are imaginary, he knows better than that, and it makes him your enemy; at the same time, no mention should be made or inquiry hazarded, after any of his ailments. Draw the patient's mind from the contemplation of himself, as far as practicable, and sympathize with the evils he complains of, and cheer him with the

prospect of recovery ; give him confidence in himself, and increase and foster every desire which will tend to divert him, provided that its gratification do not involve the infraction of any of the rules laid down for the recovery of his health.

It is often astonishing how rapidly a patient thus treated, recovers both his bodily and mental health, and is again enabled to enter into his usual avocations.

In *Delirium Tremens*, you have first to procure the patient sleep, and for this purpose, the free administration of opium and other sedatives is often called for. After once this has been accomplished, there remains only Dyspepsia and weakness to remove. Where the abuse of intoxicating liquors has been the exciting cause of the disease, their discontinuance must be gradual, or your patient may sink from exhaustion.

For the remaining complications of Dyspepsia, the proper treatment consists in removing that disease, in the application of the moral means just mentioned, and in modifying the general treatment, by attention to any particular symptoms, which may become very prominent or distressing. As for example, where violent pains in the stomach indicate cramp, hot fomentations or mustard plasters may be applied. In fits, pouring or dashing cold water on the head is sometimes of service. In fainting, the application of stimulants, &c. Where distressing sickness exists, by giving effervescent mixtures, or small doses

of soda water, and so forth. These occasional or accidental remedies, however, should cease upon the subsidence of the symptom they are intended to allay, while the general treatment, before mentioned, is to continue until the cure be completed.

In conclusion I would mention, that real religion exercises a powerful influence, both in preserving the health and in preventing disease. It tranquilizes the mind, and through its medium, the nervous force. By this means both the circulation and respiration are equalized, and their healthy action undisturbed. Its effects upon disease are even more strongly marked; the soothing and quieting power of religion greatly assists the natural tendency to recovery, as well as the action of the remedies employed by the physician. It also, in great measure, prevents those sudden and violent fatal terminations, which are liable to occur in some diseases, where great nervous or vascular excitement exists, and thus affords time for the application of means, which may avert danger, and even restore the patient to health. We may characterize the general effects of real religion as balmy, soothing, and restorative. Fanaticism and false religious feeling, exert, in every way, an opposite and prejudicial power, both upon health, and upon the removal or alleviation of disease.

THE END.

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